

**Reference Numbers and Associated Components**

- 1 Housing
- 2 Feed hopper
- 3 Receiving container for 11
- 4 Cylindrical roasting chamber
- 5 Pivoting chamber bottom flap
- 6 Cooling container, Receives roast beans from chamber
- 7 Duct-roasting air
- 8 Duct-cooling air
- 9 Chimney
- 10 Catalyst & after burner element
- 11 Cyclone
- 12 Side channel compressor
- 13 Heating cartridge

Claimed is:

1. A method for the roasting of small quantities of coffee beans in a vertically aligned, cylindrical roasting chamber (4), to which unroasted coffee beans can be batchwise charged and from which chamber, following the roasting procedure, the said coffee beans can be removed, wherein the roasting is effected by means of a hot air stream flowing through the chamber and upon the removal of the coffee beans from the said chamber, the beans are cooled by a cooling air flow, characterized in that the roasting and the cooling of the coffee beans is controllable by a programmable control unit, whereby at least the combination of the parameters roasting time, roasting temperature and volume flow of the roasting hot air can be stored in the control unit as selectable data sets with adjustable parameters, whereby the hot air flow is regulated by means of a frequency controlled side channel compressor.
2. A method in accord with claim 1, characterized in that the data sets contain additionally parameters for volume flow of the cooling air and the time of cooling.
3. A method in accord with claim 1 or 2, therein characterized, in that the data sets contain additionally parameters for color, degree of darkness of the coffee beans, quantity of batch feed, and/or exhaust temperature.
4. A method in accord with one of the foregoing claims, characterized by means of the time related variation of the operational parameters and/or the threshold parameters of the data sets.
5. An apparatus for the roasting of small quantities of coffee beans in a vertically aligned, cylindrical roasting chamber (4), to which unroasted coffee beans can be batchwise charged and from which chamber, following the roasting procedure, the said coffee beans can be removed, wherein the roasting is effected by means of a hot air

stream flowing through the chamber and upon the removal of the coffee beans from the said chamber, the beans are cooled by a cold air flow, characterized in that the roasting and the cooling of the coffee beans is controllable by a programmable control unit, whereby at least the combination of the parameters roasting time, roasting temperature and volume flow of the roasting hot air can be stored in the control unit as selectable data sets with adjustable parameters, whereby the hot air flow is regulated by means of a frequency controlled side channel compressor.

6. An apparatus in accord with claim 5, characterized in that the data sets contain additionally the parameter of volume flow of the cooling air and time of cooling.

7. An apparatus in accord with claim 5 or 6 characterized in that the data sets contain parameters for: color, degree of darkness of the coffee beans, quantity of batch feed and /or exhaust gas temperature.

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File No.: 662P

*Method and Apparatus for Roasting  
Small Quantities of Coffee Beans*

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1. A method for the roasting of small quantities of coffee beans in a vertically aligned, cylindrical roasting chamber (4), to which unroasted coffee beans can be batchwise charged and from which chamber, following the roasting procedure, the said coffee beans can be removed, wherein the roasting is effected by means of a hot air stream flowing through the chamber and upon the removal of the coffee beans from the said chamber, the beans are cooled by a cooling air flow, characterized in that the roasting and the cooling of the coffee beans is controllable by a programmable control unit, whereby at least the combination of the parameters roasting time, roasting temperature and volume flow of the roasting hot air can be stored in the control unit as selectable data sets with adjustable parameters, whereby the hot air flow is regulated by means of a frequency controlled side channel compressor.
2. A method in accord with claim 1, characterized in that the data sets contain additionally the parameters for volume flow of the cooling air and the time of cooling.
3. A method in accord with claim 1 ~~or 2~~, therein characterized, in that the data sets contain additionally the parameters for color, degree of darkness of the coffee beans, quantity of batch feed, and/or exhaust temperature.
4. A method in accord with <sup>claim 1</sup> ~~one of the foregoing claims~~, characterized by means of the time related variation of the operational parameters ~~and/or~~ the threshold parameters of the data sets.
5. An apparatus for the roasting of small quantities of coffee beans in a vertically aligned, cylindrical roasting chamber (4), to which unroasted coffee beans can be batchwise charged and from which chamber, following the roasting procedure, the said coffee beans can be removed, wherein the roasting is effected by means of a hot air

stream flowing through the chamber and upon the removal of the coffee beans from the said chamber, the beans are cooled by a cold air flow, characterized in that the roasting and the cooling of the coffee beans is controllable by a programmable control unit, whereby at least the combination of the parameters roasting time, roasting temperature and volume flow of the roasting hot air can be stored in the control unit as selectable data sets with adjustable parameters, whereby the hot air flow is regulated by means of a frequency controlled side channel compressor.

6. An apparatus in accord with claim 5, characterized in that the data sets contain additionally the parameter of volume flow of the cooling air and time of cooling.

7. An apparatus in accord with claim 5 ~~or 6~~ characterized in that the data sets contain parameters for: color, degree of darkness of the coffee beans, quantity of batch feed ~~and~~ ~~or~~ exhaust gas temperature.

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